



Certificate no.:  
**TAD00001NT**

# TYPE APPROVAL CERTIFICATE

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## This is to certify:

that the Valve

with type designation(s)  
**CVC6MPB Adjustable Choke, 10 KSI WP**

issued to

**NOV Process & Flow Technologies US, Inc - Houma**  
**Houma, LA, USA**

is found to comply with

**DNV-OS-E101 – Drilling facilities, Edition July 2024**  
**DNV statutory interpretations DNV-SI-0166 – Verification for compliance with Norwegian shelf regulations,**  
**Edition July 2021**

## Application:

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**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.**

Issued at **Houston** on **2024-09-19**

This Certificate is valid until **2029-09-18**.

for **DNV**

DNV local unit: **Certification & Inspection Services**

Approval Engineer: **Parna Deljo**

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This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.  
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.



Form code: TA 251

Revision: 2023-09

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## Product description

CVC6MPB adjustable choke, closed bonnet style, 10k psi rated working pressure

## Reference Standard

- API 6A, *Specification for Wellhead and Tree Equipment*, 21<sup>st</sup> edition.
- NACE MR0175/ISO 15156, *Petroleum and natural gas industries—Materials for use in H<sub>2</sub>S-containing environments in oil and gas production*, 3<sup>rd</sup> Edition.

## Application/Limitation

| Design Parameter                                | Value                     | Equivalent       |
|-------------------------------------------------|---------------------------|------------------|
| Maximum Working Pressure                        | : 10,000 psi              | (69.0 MPa)       |
| Hydrostatic Test Pressure                       | : 15,000 psi              | (103.5 MPa)      |
| Design Temperature Range (API 6A Temp Class LX) | : -50°F to 350°F          | (-46°C to 180°C) |
| Material Class                                  | : EE-1.5                  |                  |
| Product Specification Level                     | : PSL 3                   |                  |
| Performance Rating                              | : PR 2                    |                  |
| Service                                         | : Sour (H <sub>2</sub> S) |                  |
| System/Equipment                                | : Choke & Kill Systems    |                  |

## Type Approval documentation

### Tests carried out

| Doc No. | Date       | Title                      |
|---------|------------|----------------------------|
| 221235  | 12/08/2021 | PR2 Design Validation Test |

## Marking of product

For traceability the following marking is to be carried out on each product:

1. Serial No.
2. Manufacturer's name or trademark
3. Additional Marking at the manufacturer's discretion

## Periodical assessment

Periodical assessments for type approvals will be required after two years (+/- 90 days) and after three-and-a-half years (+/- 90 days) in accordance with DNV-CP-0338, Section 4.

## Other conditions/comments

1. Procedures related to testing, welding, NDT, and other quality control requirements are to be reviewed/approved by DNV's local surveyor.
2. 2. Actuator design review is excluded from this TAC. When equipment is certified to DNV-OS-E101, actuators are also subject to Category I equipment requirements and the specified requirements of the applicable normative reference for the system and/or equipment (See API 6A Sections 14.11.2 & 14.16.2).
3. DNV ref: A1579441

**END OF CERTIFICATE**